Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Flexibility for Delivery	)	IB Docket No. 01-185
of Communications by	)	
Mobile Satellite Service Providers	)	
in the 2 GHz Band, the L-band, and the	)	
1.6/2.4 GHz Band	)	
	)	
Amendment of Section 2.106 of the	)	ET Docket No. 95-18
Commission's Rules to Allocate Spectrum at	)	
2 GHz for Use by the Mobile Satellite Service	)	

COMMENTS OF COMTECH MOBILE DATACOM CORPORATION

Comtech Mobile Datacom Corporation ("CMDC"), by its attorneys and pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, hereby submits its comments in response to the *Notice of Proposed Rulemaking* in the above-captioned proceeding, FCC 01-225 (rel. Aug. 17, 2001) ("*Notice*"). If the Commission decides to proceed with its proposal to permit mobile satellite service ("MSS") operators in the L-band to use their spectrum for ancillary terrestrial operations, CMDC urges the Commission to take appropriate steps to ensure that such operations do not result in harmful interference to existing and planned uses of MSS spectrum for satellite-based services.

I. BACKGROUND

The *Notice* seeks comment on proposals by two MSS operators, New ICO Global Communications (Holdings) Ltd. ("ICO") and Motient Services Inc.

("Motient"), for modifications to the Commission's rules that would permit MSS operators to supplement their offerings by initiating terrestrial-based service using assigned MSS frequencies. The ICO proposal focuses on MSS services in the 2 GHz band, and the Motient proposal relates to L-band operations.

CMDC has a strong interest in the issues raised in this proceeding. CMDC holds a blanket license from the Commission authorizing it to provide wireless packet data services from mobile terminals throughout the United States and surrounding waters using L-band space segment provided by TMI Communications and Company, L.P. ("TMI"). Pursuant to this license, CMDC offers services to government and non-government users. CMDC terminals can be placed on mobile vehicles (land vehicles, boats and ships, locomotives and railcars, containers, and aircraft) or at remote, fixed site locations, and provide a variety of messaging and location monitoring functions.

Service reliability is critical to CMDC. Accordingly, CMDC urges the Commission to ensure that the rules for any new terrestrial-based operations permitted in the L-band protect CMDC's current and planned future services from harmful interference. Our specific proposals are set forth below.

II. ANY ANCILLARY TERRESTRIAL OPERATIONS IN THE L-BAND MUST NOT INTERFERE WITH SATELLITE-BASED SERVICES

The ICO and Motient proposals seek flexibility for MSS operators to complement their satellite operations with terrestrial-based networks. ICO and Motient claim that such authority would enhance the ability of MSS providers to

offer comprehensive services, and would result in increased utilization of MSS systems and decreased handset and service prices. *See Notice* at ¶¶ 10-11; 15-18.

CMDC does not object to Commission exploration of these options, provided that the Commission ensures that ancillary terrestrial use of L-band spectrum is permitted only on a non-interfering basis to primary satellite-based operations. Specifically, the Commission must implement clear and enforceable measures to prevent interference to existing and planned satellite services that rely on L-band spectrum. Ancillary terrestrial use of the spectrum should be allowed only to the extent that it is consistent with preserving the integrity of satellite-based services.

A. Ancillary Terrestrial Operations in the L-band Should Be Permitted Only in Frequencies that Have Been Coordinated for Satellite Use

First, the Commission should limit ancillary terrestrial operations to the frequencies that a satellite system has coordinated for satellite use. The Commission raises this issue in paragraph 49 of the *Notice*, asking for comment on whether restricting operators to use of their coordinated frequencies is appropriate. CMDC believes that such a restriction should be adopted.

Limiting terrestrial operations to coordinated spectrum will ensure that any MSS provider has reasonable access to spectrum for terrestrial use, supporting a competitive market for L-band satellite services in the U.S. Terrestrial operations can be permitted in order to enhance service to users inside buildings or in urban areas. However, the terrestrial use should not become the tail

wagging the dog. By restricting spectrum access to coordinated frequencies, the Commission will ensure that frequencies are available for terrestrial operations consistent with the ancillary nature of those operations.

The *Notice* also asks whether terrestrial operations should be taken into account in determining each operator's spectrum needs in the coordination process. *Id*. CMDC believes that terrestrial use should not be considered for this purpose. By taking into account only satellite system use, the Commission can prevent an entity from seeking to gain access to L-band spectrum primarily to provide terrestrial operations.

B. Terrestrial Operations Should Be Subject to PFD Limits Equivalent to those Applicable to Satellite Service

Second, the Commission should impose restrictions on the transmit power of terrestrial base stations and handsets to protect against harmful interference to satellite-based services. Specifically, the Commission should require that the power flux density ("PFD") from terrestrial transmitters outside buildings are at or below the equivalent levels for satellite terminals operating in the same spectrum. This will ensure that satellite-based operations are not impaired by interference from co-frequency terrestrial transmissions.

Should the FCC pursue this approach, we believe that it will be necessary to establish a working group of MSS service providers to ensure that for those utilizing only satellite based services, the interference potential from signals transmitted in MSS frequencies by terrestrial sources, handsets or base stations, are such as to preserve the integrity of the satellite-only service.

C. Only Ancillary Terrestrial Operations Should Be Allowed

Finally, the Commission should restrict terrestrial operations to those that are in fact ancillary to the primary satellite-based use of the L-band spectrum. The *Notice* states that:

> we intend the term "ancillary" terrestrial services to refer strictly to services provided by MSS operators that are integrated with the satellite network, use assigned MSS frequencies, and are provided for the purpose of augmenting signals in areas where the principal service signal, the satellite signal, is attenuated. *Notice* at ¶ 30.

CMDC agrees that this is an appropriate way to define ancillary services, and that terrestrial operations in L-band MSS spectrum should be limited in this way.

However, simply defining the term "ancillary" may be insufficient to ensure that satellite service remains the primary use of the spectrum. Accordingly, the Commission should consider whether to place a limit on the proportion of a system's customers that use the terrestrial network rather than the satellite network as their primary source of service (*i.e.*, more than 50% of the customer's monthly minutes are over the terrestrial path rather than the satellite path). Such a limit may be necessary as a practical matter in order to enforce compliance with the Commission's proposed definition of ancillary terrestrial service.

III. CONCLUSION

For the foregoing reasons, CMDC urges the Commission to take steps to protect satellite-based services from interference if the Commission allows L-band MSS operators to implement ancillary terrestrial service.

Respectfully submitted,

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